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ABSTRACT

Staff and graduate students from the University of Wisconsin conducted a 3-week workshop in environmental studies at Lac Courte Oreilles Community College for adolescent Native American students. Eleven girls and nine boys, aged 12-17, from six tribes enrolled in the program. Nineteen completed all 3 weeks. The curriculum covered such topics as bog ecology, ecosystems, rainforests, traditional plant uses, taxonomy, aquatic biology, dams and human values, land use policy (including tribal government decision-making simulation), lake sampling, Native American sacred sites, endangered species, and restoration ecology. Community college personnel and tribal members gave talks on Ojibwe traditions and stories, the ethical and spiritual dimensions of experimenting on the natural world, the history and cultural importance of a sacred place, wild foods, and tribal government. Student evaluations of the workshop and parent comments were very positive. Students gave the highest ratings to activities involving Native American culture or people. Staff noted some discipline problems. Recommendations for repeating the workshop include establishing an advisory council, increasing housing accommodations, and changing the application process so as to screen for maturity and academic interest. Appendices contain the curriculum calendar and student evaluation form. (SV)

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ED 366 486

Precollege Program for Native American Students in Environmental Studies

June 13, 1993 - July 1, 1993

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FINAL REPORT

Lac Courte Oreilles Community College

Institute for Environmental Studies,
University of Wisconsin - Madison

RC 019481

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Red Cliff
Reservation
Bad River
Reservation
Lac Courte Oreilles
Reservation
Oneida Reservation
Green Bay
Milwaukee
Madison

FINAL REPORT

1993 PRE-COLLEGE PROGRAM FOR NATIVE AMERICAN STUDENTS

IN ENVIRONMENTAL STUDIES

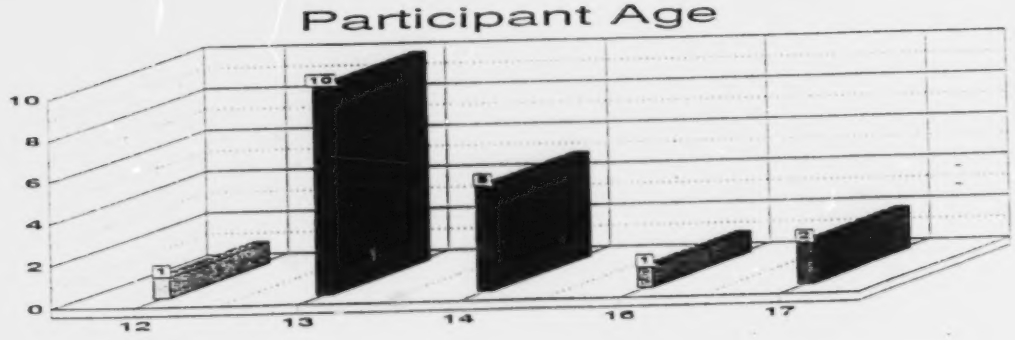
Summary:

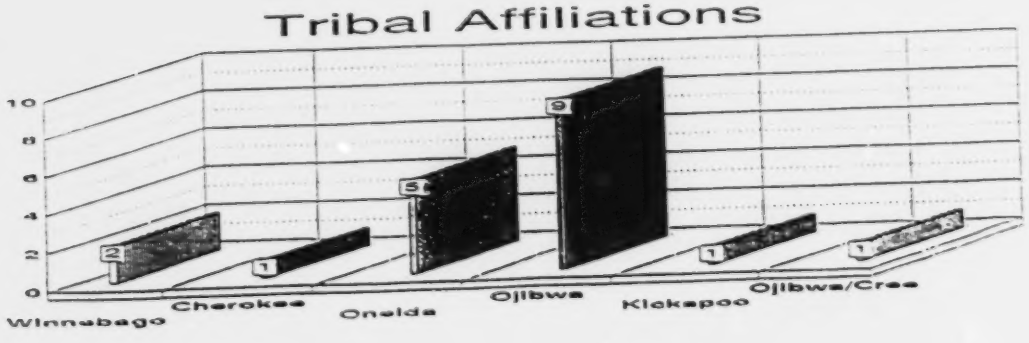
From June 13, to July 1, 1993 an Environmental Studies Workshop for Native American Students was conducted by an academic staff member and three graduate students from the Institute for Environmental Studies at UW-Madison. A faculty member who served as the project investigator was actively involved in designing this program. Funding for this project was provided by two units at UW-Madison: the Center for Biology Education and the Interinstitutional Linkages Program.

At the conclusion of the program, evaluations were done by the students, by the staff who participated, by parents/families and other adult participants involved, which led to the following conclusion. We believe the 1993 summer program was a success and recommend that it be repeated next year with some modifications.

Application Process and Participation/ Housing:

Twenty students enrolled in the program and nineteen completed all three weeks. Three applications came in late and were placed on a waiting list. There were 11 girls and 9 boys and the following graphs show the age and tribal distributions:





While we had set our enrollment limit at 20, largely based on the size limitations of the vans used for transporting participants, we initially did not expect to have that many students. This was based on the fact that in 1992 we had only 4 participants and our recruiting in 1993 started fairly late (May 1). We also expected that the majority of participants would be from the Lac Courte Oreilles reservation - an expectation that turned out to be wrong and which had important implications for the demands made on the staff.

The housing for the two weeks at Lac Courte Oreilles consisted of a small (2 bedroom) cabin on Lake Ashegon. There were many wonderful features of the cabin; its beautiful lake view, the row and paddle boats, a complete kitchen and large yard space. We initially anticipated that the four staff members would use the cabin and that if we had participants from off LCO they could also stay there with us. As the number of non-LCO students grew, we decided to supplement space in the cabin with tents. In the end we had as many as 16 students plus the staff members who stayed at this facility--clearly an overload.

Discipline problems were more difficult to deal with than had been expected and this may have been related to the large number of students in their early teens. While the application did ask the age of applicants, this proved to be no indicator of maturity. A few participants seemed to forget that the program was a "workshop" requiring effort, and not a recreational camp.

Evaluation of the curriculum

A schedule of the curriculum used is attached as Appendix A. Student participants were asked to rank each of the learning experiences with a grade of 1 (favorite) to 4 (least favorite). The results of that and other parts of the evaluation are contained in Appendix B. It is no surprise that those activities which involved Native American persons were by far the most popular. This is one of the strengths of the program and should be strengthened even more.

Comments from parents of the participants

"She talks more about environmental issues, which is good. This is a great program."

"Sara enjoyed the program immensely. She is still telling us about the adventure."

"He is anxious to apply again next year. I admire what this camp is all about."

"...this program should continue. Every Native American-especially urban kids, should have this experience."

"We all think the program was very well run, and also a huge success... He enjoyed all aspects of the program. ...maybe there could be some type of language program for the different tribes."

"Derek enjoyed the whole summer camp activity...more children should get involved, it's a great experience."

"Overall, I think the program was a benefit to her as she now is interested in pursuing a environmental law degree when she graduates. It (the program) has had a positive impact on her outlook. Thanks."

Participation of Native Americans in the Program

As a means of shaping the curriculum and obtaining comments and feedback from Native Americans, we invited a number of persons to a curriculum review meeting in early June. Those attending the meeting included:

Larry Whitefeather--MATC Native American Student Counselor and recruiter
Willy Red Hawk, Larry's brother
Ken Whitehorse, Madison Public School, Title V coordinator
Barb Elgutaa, UW-Madison Dean of Students office
Liz Arbuckle, UW-Madison admissions office
Truman Lowe, Professor of Art, UW-Madison
Jose Rios, Center for Biology Education
Dolly Ledin, Center for Biology Education
Bill Lontz, Professor, UW-Madison
Barbara Borns, Rick Peterson, Anne Barnes and Dave Foster, IES

Their counsel and suggestions were very helpful in making the curriculum more sensitive to Native American perspectives. Important results include changing "talking circles" to "reflection time" and inviting an LCO Tribal member, Ray Wolf, Sr. to participate in the tribal government simulation. The "Reflection Time" was intended to summarize and reflect on the day's learning experiences. In fact this was not done daily but did work well twice. However, this activity was not given very high ranking by students in their evaluations.

In addition to the meeting described above, which helped shape the program, a number of other Native Americans participated in offering the curriculum. These persons were:

AT LCO:

Jerry Smith, Teacher at the LCO Community College, recounted many Ojibwe traditions, teachings and stories pertaining to the environment; led us on a walking tour of medicinal plants, Devil's Lake and his family sugar bush

Nancy Merrill, Academic Dean at LCO Community College, welcomed us to College and introduced us to other pre-college programs running concurrently, has offered help with continuing program

Janice Rosado, LCO tribal member, gave an opening talk about ethical and spiritual dimensions of taking the gifts of the natural world for use in experiments or for study

Marilyn Benton, Teacher at LCO Community College, met with us at Pipestone falls describing the history and cultural importance of this sacred place

Saxon Gouge, LCO Tribal Elder, prepared a wonderful feast of wild foods and shared her wisdom on how to live from the fruits of the land

George Taylor, staffperson at LCO Community college, provided recreational equipment and ideas for afternoon activities

Ray Wolf,Sr., LCO Tribal Governing Board Member, participated in the Tribal Government Simulation and spoke to the students about how a tribal board makes land use decisions.

AT BAD RIVER

Joe Rose, Professor at Northland College spoke about Ojibwe stories of creation and the significance of Ojibwe environmental philosophies for taking care of the earth; led us on a visit to a Medicine Lodge on the shore of Lake Superior

Joe Dan Rose, fisheries manager at Bad River coordinated trip on the Kakagon sloughs. Had Hilary Butler, Russell Corbine, Ken Couture, and Edward Leoso drive the boats and pointed out many natural sights on sloughs

AT MADISON

Liz Arbuckle, participated in our day at Bad River and hosted the group for supper at her home, met with us in Madison describing admissions process and led tour of campus

Barb Elgutaa, welcomed students at the reception and described support networks on campus

Matt Snipp, Professor of Sociology and head of American Indian Study program on campus welcomed students and described his work

Gary Sandefur, Associate Dean met and welcomed students

Tom Hrabek, Graduate student in Limnology spoke with students about his work and drove boats on our lake sampling trip

Larry Johns, effigy mounds specialist for Winnebago Nation, met and discussed with us the mounds on the north shore of Lake Mendota

Carol Edgerton, is librarian at the Native American Center who welcomed us to center and explained their activities.

Evaluation of the administration and logistics of the program

Evaluations were solicited from each member of the staff, from the students, from the student's parent's or family and from adult participants. Of the 19 students who completed the program, we received 18 evaluations. 5 ranked the program as excellent, 11 as good, 1 as fair and 1 as both good and fair. When asked what they would remember most, the most common answer was "the people I met" or the "friends that I made". When asked if the stipend (maximum of $150.00) was important, 6 indicated not important, 8 indicated it was important and the rest were in between. Only one person said they would not participate without the stipend. When asked if we should repeat the workshop, 18 said yes. When asked if they would participate again 16 said yes, 1 said maybe and 1 said yes if the students are more mature. The most popular activities were Native Plant Uses, the Bad River Trip and the Wild Food Feast.

Recommendations

1. Given the importance of getting suggestions from a variety of people to make this workshop effective, establishment of an Advisory Committee would be desirable. This group should be composed of both campus and non-campus representatives and of both Native American and non-Natives.

2. If larger housing accommodations are not available for next year, the enrollment should be limited to 12-14 students with all participants staying together. An alternative is to break the program into two sections based on age; one section for those 12-15 and a second section for those 16-18. It might be preferable to conduct the workshop for two weeks; one week at LCO and the second at UW-Madison but have five day weeks instead of the four used in 1993. Work with Nancy Merrill at the LCO Community College to seek help with chaperons and housekeeping duties from students at the college.

3. Application Process

    a. As a means of screening for maturity, the application should ask for a short essay by each person describing their specific interest in environmental issues. In addition a letter of reference from a teacher acquainted with the applicant should be requested.

    b. The stipend should not be mentioned as part of advertising prior to the workshop although it will be included as in past years. This is done to eliminate the problem of students using the stipend as a bargaining chip for choosing activities which they may not wish to do.

    c. There should be a firm application deadline of two weeks prior to the beginning of the program.

    d. Have advertising give a stronger message about the academic focus of the program

    e. List grounds for dismissal from the program.

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APPENDIX A

CURRICULUM CALENDAR

Date: Monday, June 14
Subject: Welcome & Bog Ecology

8:30-9:00: Welcome & Introductions

9:00-9:45: Opening Ceremony
Jerry Smith - Instructor, LCOCC
Nancy Merrill - LCOCC

10:00-10:30: Science and Traditional Ways
Janice Rosairo - LCO tribal member

10:30-12:00: Exploration of Workshop
Listening Circle
-Focus on perception/ observation
Project Wild Game
Logistics of Workshop
-Student Notebooks
-Journals
-Individual Projects

LUNCH

1:00-3:45: Bog Visit
Introduction to bogs
Introduction to sampling
Exploration
-Plant adaptation
-Animal life
-Sample collection

Date: Tuesday, June 15
Subject: Ecosystems & Rainforests

8:30-10:00: Exploring the Idea of Ecosystems
Introduction to Bottle Biology (BB)
Small Group Work
-Choose question
-Set up experiment
-Design BB project

10:00-12:00: Building an Ecosystem (BB)
Begin construction of BB projects
Discussion of experimentation/monitoring of BB projects

LUNCH

1:00-3:30: Biological Sample Collecting
Sample collecting to fill BB projects
-Water
-Soil
-Plants
Complete BB construction

3:30-4:30: Visit to an African Rainforest
Talk/Slideshow on Zaire's Ituri Forest
Rainforest Games

CURRICULUM CALENDAR

Date: Monday, June 21
Subject: "A Day at the Sloughs"

7:30: Leave for Ashland, WI

10:00-11:00: Discussion of Creation Myth
Joe Rose - Professor of Native American Studies, Northland College

11:00-1:00: Picnic lunch at Madigan Beach

1:00-4:30: Tour of Bad River Reservation
Joe Dan Rose - Director of Fisheries, Bad River Reservation
James Meeker - Associate Professor, Northland College
Tour of Bad River Fish Hatchery
Tour of Kakagon Sloughs

4:30-5:30: Supper with Liz Arbuckle

Date: Tuesday, June 22
Subject: Species Diversity & Ways of Knowing

8:30-9:30: Individual Projects
One-on-one guidance
Library Research

9:30-12:00: Discussion of Cultural and Traditional Plant Uses
Jerry Smith - Instructor, LCOCC
Storytelling, traditional plant uses
Devil's Lake
-Discussion of Devil's Lake
-Discussion of medicinal plants
Tour of Jerry Smith's Sugar Bush

LUNCH

1:00-4:00: Demystifying Taxonomy
Introduction to Taxonomy
The Naming Game
-Students create own taxonomy
-Students construct species/area curve
-Explores relationship between traditional and Latin Binomial naming systems

4:00-5:00: Introduction of Tribal Government Simulation

CURRICULUM CALENDAR

Date: Wednesday, June 16
Subject: Aquatic Biology

8:30-10:30: Laboratory Work
Deb Anderson - Environmental Science Instructor, LCOCC
Introduction to Laboratory Work
Microscope Work
-Identification/Analysis of aquatic and soil organisms

11:00-12:00: "Life in Streams"
Bill Swenson - Professor of Biology, UW Superior

LUNCH

1:00-4:30: Canoe Trip - Couderay River*
Snorkeling/Exploration
-Study adaptation of stream life to river flow
-Identify organisms
-plant
-insect
-fish
Discussion of population biology
Discussion/observation of human impacts

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*Moved to Friday June 18 because of rain. Replaced with discussion on exotic species led by Bill Swenson.

Date: Thursday, June 17
Subject: Dams & Human Values

8:30-9:15: Travel to Winter Dam

9:15-10:45: History of Winter Dam
Timm Severud - Facilities Manager, Winter Dam
Includes background on water rights

11:00-12:00: Discussion - Dams
Consideration of Issues/Effects
-Ecological
-Political
-Economic
-Aesthetic

LUNCH

1:00-2:00: Blueberry Creek beaver dams
Discussion of differences between human and beaver dams

2:00-3:30: A Sense of Place: Human Values and the Environment
Introduction to A Sense of Place
-Value of aesthetics
-Alternative forms of measurement: the Arts
Where Do I Fit In?: A Nature Walk
-Solitary reflection of nature
-Expression of observation through words, pictures or songs
Sharing Results
-led by Jerry Smith

CURRICULUM CALENDAR

Date: Wednesday, June 23
Subject: Land Use Policy

8:30-9:00: Discussion of Tribal Governments
Ray Wolf - LCO Tribal Council Member

9:00-10:30: Preparation for Tribal Government Simulation
Participants work in groups
-Researching roles
-Preparing presentations

10:30-12:00: Tribal Government Simulation
Group presentations to simulation tribal council

LUNCH

1:00-2:30: Finish Simulation
Simulation tribal council reaches decision
Discussion of simulation and land use decisions

2:30-4:30: Open Time
Library Reading
Journal Writing
Preparation of research projects

4:30-5:00: First collection of Journals

Date: Thursday, June 24
Subject: Synthesis

10:00-11:15: Pipestone Falls
Marilyn Benton - Instructor, LCOCC
History and importance of falls

12:00-3:00: Wild Food Fest
Saxon Gouge - LCO Tribal Elder assisted by Bill Lontz - Associate Professor, UW Extension
Discussion: Wild Food Plants

3:00-4:00: Reflection Time
Synthesis of time in northern Wisconsin

4:00-5:00: Volleyball

Travel to Madison Sunday, June 27th

CURRICULUM CALENDAR

Date: Monday, June 28
Subject: Welcome & Lake Sampling

8:30-9:00: Introduction to Madison

9:00-11:00: Madison Reception
Presentations (9:00-10:00)
-UW Native American faculty, staff and students
Introductions (10:00)
Open Reception (10:10-11:00)

11:00-12:00: Tour of UW Campus

LUNCH

1:00-2:30: Open Time
Individual Projects

2:30-5:00: Lake Sampling aboard the Limnos
John Magnuson - Professor of Zoology/IES, UW Madison
Introduction to Lake Mendota
Sample collection aboard the Limnos
Tour of Limnology Laboratory
Examination of lake samples

Date: Tuesday, June 29
Subject: Exploration of Indian Mounds & Endangered Species

8:30-10:15: Tour and Talk on Effigy Mounds
Jim Stoltman - Professor of Anthropology, UW Madison
Archeological and Cultural Conservation
Visit mounds on UW Campus

10:30-12:00: Tour and Talk on Native American Views of Sacred Sites
Larry Johns - Winnebago Effigy Mound Specialist
Travel to effigy mounds at Mendota Mental Health

PICNIC LUNCH

12:45-1:45: Travel to International Crane Foundation (ICF)

2:00-4:30: Tour of ICF
Discuss cranes as endangered species
Discuss habitat as key to species' survival

4:30: Return to Madison
Evening potluck at Barbara Borns' home

CURRICULUM CALENDAR

Date: Wednesday, June 30
Subject: Restoration Ecology & Native Plants

8:30-11:00: Tour of the UW Arboretum
Evelyn Howell - Professor of Landscape Architecture/IES, UW Madison
Restoration Ecology
Greg Armstrong - Director, UW Arboretum
History of the UW Arboretum

LUNCH

12:30-1:30: Reflection Time
Preparation for meeting with Legislators

1:30-3:30: Meeting with Legislators
A conversation with
-Representative Frank Boyle
-Representative Spencer Black

4:00-5:00: Open Time
Journal Writing
Individual Projects
Completion of Evaluation Forms

Second collection of Journals

Evening Meeting at the Native American Center

Date: Thursday, July 1
Subject: Synthesis Day

8:30-11:00: Individual Project Presentations

11:00-12:00: Reflection Time
Presentation of Certificates

LUNCH & GOODBYES

1:00: Depart for LCO

APPENDIX B

SUMMARY SHEET

STUDENT EVALUATION FORM OF PRECOLLEGE PROGRAM
ENVIRONMENTAL STUDIES FOR NATIVE AMERICAN STUDENTS

1. Overall how would you rank the workshop?

5 Excellent	1 1/2 Fair
11 1/2 Good	____ Poor

2. What did you enjoy the most?

Bog walk, Bad River, Water Fall, Bottle Biology, Madison, Canoe, the people, native plant uses, staying at dorms

(Using a rating scale of 1-4; 1 = most enjoyed, 4 = least) (See attached sheet)

Workshop Activities:

Bog Walk	____
Bottle Biology	____
African Rain Forest	____
Microscopic Examination of Pond water	____
Life in Streams (Bill Swenson)	____
Exotics in Streams (Bill Swenson)	____
Trip to Winter Dam	____
A Sense of Place - writing, poetry/ drawing exercise	____
Bad River Trip/Fisheries/Sloughs	____
Taxonomy Exercise	____
Native Plant Uses (Jerry Smith)	____
Tribal Government Simulation	____
Pipestone Falls	____
Wild Food Feast	____
Lake Mendota Sampling	____
Effigy Mounds	____
Tour of International Crane Foundation	____
Tour of UW-Arboretum	____
Meet with State Legislators	____
Listening Circles	____

Other comments: More hands' on activities, waterfall was fun

3. What will you remember the most?

- people I met and counselors
- Sara falling in bog
- everything
- kids, counselors, canoe trip
- the people
- I was the oldest
- days at the dorm
- bear shit
- meeting people
- bog walk
- sacred lands & the people
- the people
- things we did
- learned about another culture
- the friends I made
- went to Chippewa (Potato?) Falls
- pushing Sara in bog
- staying at dorms
- the people
- the people

4. What are three things you learned from the workshop?

- how to tell how deep water is, how much oxygen in water, different plants
- friendship, understanding environment, and enjoying the woods
- don't whittle toward yourself or pee against the wind, where bitterroot grows
- pollution, fishes and dams, plants/medicine and animals
- plants, animals, and to be nice
- legislators were unable to answer questions
- plants, nettles
- biology, Indian ways and rainforests
- poison ivy hurts, identification of frogleaf, cranes have different species
- plants, trees, Indians & land
- put down tobacco when you take something, respect Mother Earth, useful plants
- how to canoe, mounds are important, medicine plants
- difference between nettles and poison ivy
- plants, be friendly, have fun
- show respect, plants, have fun
- bear shit, birds, how to paralyze fish
- importance of mother Nature, medicine plants, culture
- save the environment, plants, how to make weird sounds

5. What are you going to do with what you learned about the environment?

- not litter, recycle more, take care of air
- teach others
- share my experience
- in school activities and teach smaller kids
- teach others
- pay more attention
- teach family and friends, remember it, use it
- don't know
- listen more
- remember it
- tell parents
- tell other people about it
- remember to use it
- talk to others

6. What would you have changed?

- nothing
- the many walks
- barely nothing
- the timing
- pick mature people
- nothing
- not much, listening to people
- later curfews
- more planned events
- longer camp
- have bigger cabins
- stay in Madison longer
- the times
- how long at cabin

7. How important is the stipend to your participating?

- not important
- not very
- important
- a little
- not very (don't mention till later)
- important
- semi important but I do it anyway
- half
- ?
- in between
- a lot
- very good
- not very
- very, very, important
- not really

a) Would you participate without it?

Yes - 7
No - I
Maybe - 4
Probably - 2
Yes/Maybe - I
Maybe, most likely - I

8. Should we repeat this workshop?

Yes - I7 = 18

9. Would you participate a second time?

Yes - ☞ 16
Maybe - I
Only if students are more mature - I

10. Other suggestions or comments?

- same counselors?
- don't change counsellors
- more time in Madison
- no
- it was cool
- pick mature people
- it was fun
- don't walk so much
- more strict counselors if the same type of kids come back
- the camp program activities were excellent
- I just wish the kids were more interested and serious about a topic which is serious to many people

SUMMARY

Rank	Workshop Activities	1	2	3	4
7	Bog Walk	2	8	4	3
7	Bottle Biology	5	5	5	2
2	African Rain Forest	6	9	1	1
7	Microscopic Examination of Pond water	7	3	2	5
6	Life in Streams (Bill Swenson)	7	4	4	2
5	Exotics in Streams (Bill Swenson)	7	5	3	3
2	Trip to Winter Dam	9	6	1	1
3	A Sense of Place - writing, poetry/ drawing exercise	8	6	1	2
2	Bad River Trip/Fisheries/Sloughs	12	3	2	0
6	Taxonomy Exercise	4	7	3	3
1	Native Plant Uses (Jerry Smith)	13	3	1	1
6	Tribal Government Simulation	5	6	2	4
2	Pipestone Falls	10	5	1	1
3	Wild Food Feast	11	3	1	2
5	Lake Mendota Sampling	6	6	4	2
4	Effigy Mounds	5	8	2	2
5	Tour of International Crane Foundation	8	4	5	1
8	Tour of UW-Arboretum	4	4	6	3
6	Meet with State Legislators	8	4	4	2
5	Listening Circles	6	6	1	4

Ranking: 1 = favorite, 4 = least favorite